INDEX

BULLETIN OF EXPERIMENTAL BIOLOGY AND MEDICINE

Vols. 55 and 56, 1963

ARCHIVE

BULLETIN OF EXPERIMENTAL BIOLOGY AND MEDICINE

Vols. 55 and 56, 1963

A translation of Byulleten' Éksperimental'noi Biologii i Meditsiny

A

Abidov, A. A. - 555, 772, 1000, 1112
Adzhimolaev, T. A. - 115, 243
Afanas'eva, A. V. - 877
Airapetyants, M. G. - 22
Akinshina, G. T. - 1359
Aladzhalova, N. A. - 119
Alatyrev, V. I. - 239
Aleksanyan, R. A. - 1046
Aleshin, B. V. - 923
Al'pern, D. E. - 461
Anikina, N. A. - 29
Anokhin, V. N. - 860
Anshelevich, Yu. V. - 272
Antipov, V. V. - 429
Antonova, E. E. - 1356
Arlashchenko, N. I. - 852
Arushanyan, E. B. - 1173, 1295
Avdeev, G. I. - 311

B

Babaeva, A. G. - 320
Babmindra, V. P. - 233
Baishtruk, O. N. - 1387
Baklavadzhyan, O. G. - 8
Balitskii, K. P. - 151
Ball', T. V. - 458
Baltaitis, Yu. V. - 145
Bandurina, L. A. - 282
Bardysheva, E. A. - 1
Barer, A. S. - 726, 856
Bartyzel, A. I. - 111
Bashkaev, I. S. - 311
Baskakova, G. M. - 1311
Bazaz'yan, G. G. - 493
Beilin, V. G. - 76
Bel'chenko, D. I. - 891
Belen'kii, M. L. - 535
Belitskii, G. A. - 565
Belyaev, V. I. - 848
Belyaev, V. S. - 979
Berlin, L. B. - 223
Biryukov, V. E. - 34
Bitkova, A. N. - 66
Blinkova, T. P. - 1323
Blinova, A. M. - 359
Blyuger, A. F. - 535, 757
Bochkov, N. P. - 581
Bogdanov, O. V. - 1323
Bokhov, B. B. - 852
Bogoyavlenskaya, N. V. - 1096
Bondarenko, N. A. - 34
Bordyushkov, Yu. N. - 61, 451, 1025
Borisov, L. B. - 76
Bozhko, A. P. - 69
Braude, A. I. - 84
Brayer, Ernest - 48
Brazovskaya, F. A. - 1039
Bredikis, Yu. I. - 375
Breger, M. A. - 1102
Bromberg, É. D. - 348
Brusilovskii, A. I. - 731
Bukharin, V. A. - 982
Bukrinskaya, A. G. - 767
Bunkina, L. S. - 14, 138
Busygin, V. E. - 852
Buyanov, V. V. - 177

C

Chang Ming-hua - 965
Chelnokova, N. A. - 835
Cherkasskii, L. P. - 116
Chernousova, V. V. - 497
Chernukh, A. M. - 1102
Chernyakov, I. N. - 37
Chernyavskaya, M. A. - 982
Chikrizov, F. D. - 775
Chubukov, V. F. - 1351

D

Dang-Thu - 248
Dang, Tkhu - 841
Dashkevich, L. B. - 76
Davtyan, N. K. - 529, 1078
Davydova, V. M. - 1083
Delen'kaya, S. E. - 806
Denisov-Nikol'skii, Yu. I. - 1154
Dil'man, V. M. - 403
Dmitrieva, T. M. - 838
Dobrokhotova, L. P. - 40
Dobromyslova, O. P. - 486
Dokukin, A. V. - 384
Domaradskii, I. V. - 518, 779
Dontsova, Z. S. - 34
Dorosheva, N. G. - 979
Dorosheva, Yu. N. - 111
Dosta, G. A. - 59
Dudarova, S. I. - 1330
Dyablova, P. E. - 898
Dzhelieva, Z. N. - 1067

E

Egorov, I. K. - 1372
Engel'gardt, N. V. - 1265
Enikeeva, S. I. - 717
Epifanova, O. I. - 88, 1278
Ermakova, F. B. - 194
Ermolaeva, V. Yu. - 345, 928
Esakov, A. I. - 831, 1184
Étingen, L. E. - 1367
Evtushenko, A. Ya. - 203

F

Faibich, M. M. - 69
Faitel'berg-Blank, V. R. - 894
Farber, Yu. V. - 852
Fedorova, A. P. - 827, 990
Fedotov, V. P. - 532
Fel'berbaum, R. A. - 747
Ferkhmin, A. A. - 1022
Fidel'man, E. S. - 1117
Filov, V. A. - 398
Firsova, P. P. - 318
Fishchenko, L. Ya. - 976
Flerov, B. A. - 80
Fomina, L. S. - 352
Fridenshtein, A. Ya. - 454, 1375

G

Gaber, I. E. - 265
Galle, V. - 1187
Gal'perin, Yu. M. -133, 515
Garbulinski, T. - 4, 128
Garin, A. M. - 198
Garkavi, L. Kh. - 61
Gatsura, V. V. - 282
Geller, L. I. - 268
Gendon, Yu. Z. - 1114
Genes, S. G. - 410
Geselevich, E. L. - 275
Gilinskii, E. Ya. - 265
Gil'man, I. M. - 482, 939
Gokhblit, I. I. - 14
Golda, V. - 1056
Gol'dfarb, D. M. - 1351
Golikov, S. N. - 1249
Golosova, T. V. - 84
Golov, G. A. - 726, 856
Goncharova, L. S. - 230
Gorbovitsky, G. B. - 1289
Gosk, A. - 4, 128
Govallo, V. I. - 1121
Grechishkin, L. L. - 406
Grigor'ev, A. V. - 911
Grigor'ev, Yu. G. - 852
Grigor 'eva, G. I. - 526
Groisman, S. D. - 1200
Gromova, É. G. - 18
Gronskaya, N. F. - 215
Grushina, N. V. - 88
Gubskii, V. I. - 1029
Gulyamov, T. D. - 1092
Gurvich, N. L. - 1206

I

Il'ina-Kakueva, E. I. - 1145
Il'yuchenok, R. Yu. - 286, 1252
Iordanskaya, E. I. - 1039
Irger, I. M. - 482
Ivannikova, T. V. - 84
Ivanov, R. F. - 163
Ivanova, E. A. - 802
Ivanova, L. N. - 1289
Ivanova, S. N. 500, 1231
Ivanteeva, E. P. - 403
Ivashkina, I. N. - 72

K

Kabak, Ya. M. - 802
Kadzhieva, Z. N. - 1285
Kagan, G. Ya. - 66
Kalinina, N. A. - 227, 552
Kalishevskaya, T. M. - 1, 958
Kargina-Terent'eva, R. A. - 1131
Karmysheva, V. Ya. - 919
Karpman, V. L. - 65
Kaulen, D. R. - 53
Kazanchev, M. I. - 994
Khananashvili, M. M. - 1282
Kharlampovich, S. I. - 294
Kharlova, G. V. - 320
Khautin, S. N. - 1063
Khitrov, N. K. - 415
Khlystova, Z. S. - 569
Kholodov, Yu. A. - 969
Khoruzhaya, S. D. - 124
Khrabrova, O. P. - 112
Khrushchov, N. G. - 1150
Khundanova, L. L. - 782
Kibyakov, A. V. - 1053
Kiryushina, I. N. - 366
Kirzon, M. V. - 478
Kiseleva, K. S. - 1206
Kisin, I. E. - 177
Kivman, G. Ya. 552
Klemparskaya, N. N. - 1124
Klimanova, M. I. - 100
Klimenko, E. D. - 73
Klochkov, A. M. - 585
Koblov, G. A. - 219
Kogan, A. Kh. - 40
Kol'tsova, A. V. - 119
Kondrat'ev, V. S. - 105
Konoplev, V. P. - 442
Konyukhov, B. V. - 581
Kopeikin, V. I. - 163
Koptelova, E. I. - 66
Kopytova, F. V. - 478, 1311
Korneev, A. A. - 69
Korneva, E. A. - 25, 900
Kornienko, I. A. - 14
Kornil'ev, E. P. - 812
Korolebskii, A. P. - 812
Koroleva, L. V. - 1384
Korostovtseva, N. V. - 866
Korotaeva, A. V. - 779
Korpash, Yu. - 1192
Kosenko, A. F. - 950
Kosichenko, L. P. - 106
Kositsyn, I. I. - 61
Kositsyn, N. S. - 233
Kostenko, I. G. - 375
Kosyakov, P. N. - 1012
Kovalenko, E. A. - 37, 1394
Kovaleva, T. N. - 1219, 1302
Kozunin, I. I. - 1048
Krasil'nikova, N. V. - 794, 915
Kraskina, N. A. - 57
Krasnov, I. B. - 458, 1098
Krivobok, Yu. V. - 923
Krokhina, E. M. - 1379
Krotova, S. I. - 45
Kruglikov, R. I. - 736
Krupenina, V. I. - 518
Krushinskii, L. V. - 40
Kudrin, I. D. - 261
Kudryashov, B. A. - 493, 958
Kulaev, B. S. - 953
Kulagina, V. P. - 489
Kulik, A. M. - 1192
Kull', M. M. - 1161
Kunkel', Yu. P. - 1141
Kurilova, L. M. - 141, 838, 947, 1060
Kurlyand, B. Kh. - 816
Kurmaev, O. D. - 745
Kuzmina, S. V. - 1035
Kuz'minykh, S. B. - 1164
Kuznetsov, M. I. - 835
Kuznetsov, S. M. - 80
Kuznetsova, L. A. - 34
Kuznetsova, N. I. - 307
Kuznetsova, V. M. - 84
Kuznetsova, Z. V. - 1398
Kuznik, B. I. - 278

L

Lagova, N. D. - 442
Laguchev, S. S. - 1131
Lalykina, K. S. - 454
Larionova, E. M. - 883
Lazarenko, F. M. - 1269
Lazarev, A. F. - 1356
Lazovskaya, A. V. - 173
Lebedev, N. N. - 111
Ledentsov, Yu. K. - 883
Leites, F. L. - 464, 1074
Leites, S. M. - 529
Lektorskii, B. I. - 1092
Lemeneva, L. N. - 1012
Lempert, B. L. - 1074
Lesnoi, N. G. - 410
Levashev, V. S. - 422
Levenson, V. I. - 57
Levi, M. I. - 88, 299, 775
Levin, Yu. M. - 504
Liberman, L. L. - 56, 845
Liozner, L. D. - 320
Lisovskii, V. A. - 1235
Litver, G. M. - 79
Livanov, G. A. - 1214

Lizonek, P. - 1056
Lomakin, M. S. - 313, 445
Lomakina, L. Ya. - 88
Looga, R. Yu. - 1161
Lopatina, N. I. - 523
Losev, N. I. - 1164
Loshak, A. Ya. - 1340
Luk'yanenko, V. I. - 80
Luria, E. A. - 1269
Lushnikov, E. F. - 105
Lyubimov, N. N. - 705

M

Maiskii, V. V. - 166
Makaleev, I. Sh. - 745
Malakhovskaya, D. B. - 944
Mambeeva, A. A. - 395
Markova, E. A. - 259
Markovskaya, G. I. - 26
Martkoplishvili, M. D. - 141
Mashkeev, A. K. - 471
Maslov, S. P. - 72
Matveev, M. P. - 471
Matyushkin, D. P. - 3, 235
Mchedlishvili, G. I. - 4, 128
Meerson, F. Z. - 26
Megreladze, O. Ya. - 80
Melzobs, M. Ya. - 272
Merkur'eva, R. V. - 275
Mikhailova, E. M. - 521
Mikoélyan, A. L. - 26
Milyutin, V. N. - 100
Mironov, N. P. - 775
Mirzoev, B. M. - 471
Mishchenko, B. A. - 294, 1353
Modenova, N. P. - 40
Modyanova, E. A. - 1016
Moiseev, E. A. - 1203
Mosidze, V. M. - 710
Moskalev, Yu. I. - 542
Movchan, O. T. - 103
Muzhnai, D. - 160
Myasnikov, A. L. - 400

N

Narovchatova, K. I. - 102
Naumova, T. S. - 705
Negovskii, V. A. - 1206
Neiko, E. M. - 976
Nemets, M. G. - 155
Nepogodin, N. F. - 69
Nesmeyanova, T. N. - 1039
Nesterin, M. F. - 860
Nesvad'ba, V. V. - 904
Nguen Nang An - 1261
Nikiforova, E. N. - 1134
Nikitin, V. S. - 1081
Nikolaev, V. G. - 145
Nikolov, S. Kh. - 163
Nilova, N. A. - 73, 1390
Nilovskii, M. N. - 77
Nosova, V. N. - 493
Nozdrachev, A. D. - 1043

O

Okolov, F. S. - 163
Oranskii, I. E. - 113
Orlov, R. S. - 1053
Osipova, S. V. - 550
Ostrovskaya, R. U. - 286, 1252
Ostrovskii, Yu. M. - 1081
Ou Pao-hsiung - 191
Ovchinnikova, G. A. - 207

P

Pan'shina, T. N. - 1347
Parnes, V. A. - 433
Pechenkin, V. A. - 1249
Pekhov, A. P. - 555, 1353
Penteshina, N. A. - 79
Peregudov, I. G. - 223
Pershin, G. N. - 904
Petrakova, K. V. - 1375
Petrenko, V. L. - 1242
Petrovich, I. K. - 542
Petrzhek, I. - 1056
Piontkovskii, I. A. - 22, 736
Plaksin, A. I. - 203
Pletsityi, D. F. - 1117
Poddubnaya, V. A. - 163
Podlesnaya, A. I. - 546
Podoplelov, I. I. - 324
Polshkova, V. N. - 419, 1271
Polyakov, B. I. - 852
Ponomar'kov, V. I. - 908
Popkov, V. L. - 37
Poplavskii, K. K. - 48
Popova, M. F. - 987
Portugalov, V. V. - 458
Potapov, I. A. - 722
Pozdnyakov, O. M. - 73
Pratusevich, Yu. M. - 124
Pravdich-Neminskaya, T. V. - 1256
Preobrazhenskaya, M. E. - 84
Prokopenko, L. G. - 303, 1327
Proshina, R. A. - 1203
Protasova, T. N. - 532
Prozorovskii, V. B. - 764
Puchkov, N. V. - 318
Pushkarev, Yu. P. - 714
Pytskii, V. I. - 538

R

Raitsina, S. S. - 341
Rakhmanova, T. B. - 1247
Ramenskaya, G. P. - 767
Ravich-Shcherbo, M. I. - 303, 1327
Reidler, M. M. - 1203
Repin, I. S. - 935
Repin, Yu. M. - 508, 973
Reznikov, A. G. - 1334
Rhzhova, A. F. - 1089
Rivina, E. Yu. - 482
Rizhinashvili, R. S. - 381
Rodionov, G. A. - 872
Romanova, L. K. - 320
Romanovskaya, E. A. - 230
Rozanova, V. D. - 391
Rozenshtraukh, L. V. - 990
Rozhkova, Z. A. - 1016
Rutsko, L. A. - 1168
Ryabinina, Z. A. - 97, 337
Ryss, Ya. I. - 1387
Ryzhova, A. F. - 753

S

Saakov, A. K. - 425, 1019
Saakyan, A. G. - 994
Sabsai, B. I. - 387
Sadovskaya, G. V. - 65
Sakharov, P. P. - 1271
Samolilov, V. I. - 96
Saradzhev, N. K. - 359
Sazhina, M. V. - 581
Selezneva, S. A. - 112
Seleznev, S. A. - 868
Semenov, A. A. - 740
Semenov, S. P. - 474
Semenov, V. N. - 1210
Serdyukova, O. A. - 348
Shabad, A. L. - 1362
Shaimardanov, K. A. - 44
Shapiro, Yu. L. - 511
Shapovalov, A. I. - 1173, 1295
Sharov, I. I. - 887
Sheikhon, F. D. - 359
Shevchuk, M. G. - 976
Shevlyagin, V. Ya. - 422
Shibuneev, A. G. - 1228
Shichko, G. A. - 1043
Shiffer, I. V. - 786

Shiryaev, D. T. - 775
Shmakov, V. G. - 111
Sholokhov, S. V. - 810, 1195
Shtark, M. B. - 370
Shtekher, S. G. - 211
Shtel'man, A. I. - 775
Shuster, Ya. Ya. - 535, 757
Sidorenko, E. V. - 461
Sidorova, V. F. - 790
Sinyakov, V. S. - 1158
Sirotina, M. F. - 30
Smirnov, A. I. - 1219, 1302
Smolenskaya, I. N. - 88, 1278
Smol'nikova, N. M. - 291
Soboleva, É. L. - 577
Soboleva, V. I. - 1206
Sofronov, B. N. - 403
Sokolova, E. V. - 313, 445, 802
Solov'ev, A. A. - 73
Sopil'nik, A. Yu. - 41
Sorokina, E. I. - 856
Sovetov, A. N. - 378
Stakhanova, V. M. - 558
Startsev, S. D. - 230
Stasilevich, Z. K. - 52
Stepanyan, E. P. - 275, 982
Strelets, V. A. - 1168
Strelin, G. S. - 786
Strel'nikova, E. A. - 953
Strzhizhovskii, A. D. - 148
Suchkov, Yu. G. - 88
Sudzhyan, A. V. - 1110
Sukhanov, A. A. - 113
Sukhovskaya, N. A. - 838
Supko, N. S. - 1289
Sveshnikova, N. A. - 880
Syrenskii, V. I. - 1043

T

Tanyukhina, É. I. - 1071
Telepneva, V. I. - 761
Terman, A. V. - 1340
Tikhomirov, E. P. - 726
Tikhomirov, I. I. - 1319
Timashkevich, T. B. - 92
Tkachenko, B. I. - 9, 1306
Tkhu, Dang - 19
Tolmacheva, A. A. - 1375
Tolova, S. V. - 1219, 1302
Trapeznikova, S. S. - 493
Trinus, F. P. - 170
Trofimov, L. G. - 705
Tseitina, A. Ya. - 1344
Tsoneva-Maneva, M. T. - 182, 560
Tsypin, A. B. - 962
Tsypkin, L. B. - 329
Turbina, L. V. - 253

U

Udalov, Yu. F. - 1228
Udel'nov, M. G. - 827
Ugolev, A. M. - 497
Ugryumov, E. P. - 182, 324, 560
Usacheva, I. N. - 1033
Ustina, L. B. - 97
Ustinov, D. A. - 1048
Utkin, I. A. - 103

V

Vaisberg, G. E. - 84
Vasyukhina, L. V. - 779
Vel'tishchev, Yu. E. - 471
Verulashvili, V. I. - 1336
Veselova, E. A. - 1105
Vinnitskii, I. M. - 1252
Vinogradov, E. V. - 1394
Vladimirova, I. A. - 1180, 1315
Vlasov, Yu. A. - 26
Voitkevich, A. A. - 92, 207, 1128
Volkova, A. D. - 133
Vollenberger, A. - 1187
Volokhova, N. A. - 852
Volosivets, A. I. - 1004, 1274
Voznesenskii, B. B. - 415
Vyshatina, A. I. - 1223

Y

Yakovleva, G. S. - 76
Yakovleva, M. I. - 900
Yaromyuk, G. A. - 779
Yaroshevskii, Yu. A. - 845
Yashina, I. N - 333
Yasinovskaya, F. P. - 482
Yur'ev, V. A. - 523

Z

Zaets, T. L. - 1092
Zaidenberg, M. D. - 109
Zaiko, N. S. - 835
Zaitsev, V. F. - 400
Zakharov, A. F. - 324
Zakharov, S. V. - 1238
Zaletaeva, T. A. - 1138
Zambrzhitskii, I. A. - 468
Zaprudskaya, D. S. - 979
Zaretskaya, R. B. - 820
Zaskal'ko, N. I. - 572
Zasukhina, G. D. - 997
Zbarskii, I. B. - 767
Zefirov, L. N. - 239
Zhakhova, Z. N. - 523
Zhantieva, E. M. - 558
Zhdanov, V. M. - 433, 767
Zinin, P. I. - 775
Zobnina, K. S. - 1008
Zosimovskaya, A. I. - 88
Zubavin, V. B. - 726
Zubkov, A. A. - 486

BYULLETEN' ÉKSPERIMENTAL'NOI BIOLOGII I MEDITSINY
EDITORIAL BOARD

A. Ya. Alymov
V. N. Chernigovskii
S. Ya. Kaplanskii
G. N. Kryzhanovskii
(Secretary)
A. V. Lebedinskii
(Assistant Editor)
L. D. Liozner
I. N. Maiskii
V. A. Negovskii
V. V. Parin
(Editor)
V. A. Sanotskii
L. L. Shik
A. A. Solov'ev
N. N. Zhukov-Verezhnikov
(Assistant Editor)

BULLETIN OF EXPERIMENTAL BIOLOGY AND MEDICINE

A translation of BYULLETEN' EKSPERIMENTAL'NOI BIOLOGII I MEDITSINY

A publication of the Academy of Medical Sciences of the USSR

© 1964 CONSULTANTS BUREAU ENTERPRISES, INC.
227 West 17th Street, New York 11, N. Y.

Vol. 55, No. 1, pp. 1-114 March, 1964

CONTENTS

	PAGE ENG.	PAGE RUSS.
PHYSIOLOGY		
The Role of the Autonomic Nervous System in the Reflex Humoral Regulation of the Physiological Anticlotting System in the Frog – T. M. Kalishevskaya and E. A. Bardysheva	1	3
Photohemotachometric Investigations of the Functions of the Neuromuscular Apparatus of the Internal Carotid Arteries. Report 1. Experimental Method and the Effects of Certain Physiologically Active Substances – T. Garbulinski, A. Gosk, and G. I. Mchedlishvili	4	6
Analysis of the Reflex Changes in the Cardiovascular System Following Stimulation of the Pericardial Chemoreceptors. Report 2. The Role of the Heart and of Various Vascular Fields in the Development of the Pressor Reaction – B. I. Tkachenko	9	12
Role of the Acetylcholine – Cholinesterase System in the Spontaneous Rhythmical Activity of the Amnion of the Chick Embryo – L. S. Bunkina	14	17
The Functional State of the Pituitary-Adrenal System During Digestion – É. G. Gromova	18	21
PATHOLOGICAL PHYSIOLOGY AND GENERAL PATHOLOGY		
Peculiarities of the Higher Nervous Activity of Animals Irradiated in the Antenatal Period with Ionizing Radiation. Report 5. Peculiarities of the Higher Nervous Activity in Early Postnatal Ontogenesis in Puppies Irradiated During Embryonic Development – I. A. Piontkovskii and M. G. Airapetyants	22	26
The Myocardium and the Hemodynamics During Cardiac Hyperfunction and Insufficiency. Report 2. Lowering of the Resistance of the Vascular Field as an Economic Compensatory Factor in Diseases of the Circulatory System – F. Z. Meerson, A. L. Mikoélyan, G. I. Markovskaya, and Yu. A. Vlasov	26	31
Concentration of Renin in the Kidneys in Experimental Hypertension – M. F. Sirotina	30	35
The Reaction of Dogs to Stimuli of Vascular Tone at Various Intervals after Hypophysectomy – L. A. Kuznetsova	34	40
In Vivo Study of the Oxygen Tension in the Brain Tissues During Prolonged Acceleration – E. A. Kovalenko, V. L. Popkov, and I. N. Chernyakov	37	43

(continued)

Annual Subscription $95 **Single Issue $30** **Single Article $15**

All rights reserved. No article contained herein may be reproduced for any purpose whatsoever without permission of the publisher. Permission may be obtained from Consultants Bureau Enterprises, Inc., 227 West 17th Street, New York City, United States of America.

CONTENTS (continued)

	PAGE ENG.	RUSS.
The State of the Evacuatory Function of the Stomach after Experimental Interference with Its Blood Supply – A. Yu. Sopil'nik	41	48
Age Changes in the Organ of Vision in Dogs – S. I. Krotova	45	52
BIOCHEMISTRY AND BIOPHYSICS		
Concentration of Non-Esterified Fatty Acids in the Blood of Newly Born Infants and Its Relationship to the Beginning of Breast-Feeding – Ernest Brayer	48	56
MICROBIOLOGY AND IMMUNOLOGY		
Antitoxin Formation by Cells Transplanted into an Irradiated Animal – D. R. Kaulen	53	61
The Study of the Immunological Functions of Lymphoid Tissue by the Method of Cell Transfer. Report 2. The Ability of Splenic Cells from Immunized Mice to Protect Recipients against Experimental Infection – N. A. Kraskina and V. I. Levenson	57	65
The Comparative Anatomy of Immunity – I. I. Kositsyn	61	69
Antigenic Properties of L-Forms of Salmonella typhosa – G. Ya. Kagan, E. I. Koptelova, and A. N. Bitkova	66	74
The Immunogenic Properties of Some Fractions of Pasteurella pestis – M. M. Faibich, N. F. Nepogodin, and A. A. Korneev	69	77
ONCOLOGY		
The Experimental Production of Precancer and Cancer of the Stomach – A. A. Solov'ev, E. D. Klimenko, N. A. Nilova, and O. M. Pozdnyakov	73	81
Modifications of the Allergic Reaction in Rabbits with a Transplanted Brown-Pearce Tumor – M. N. Nilovskii	77	85
EXPERIMENTAL BIOLOGY		
The Species Specificity of Organ Regeneration of Skeletal Muscles in Mammals – G. M. Litver and N. A. Penteshina	79	88
The Possibility of Division of the Cortical Neurons – T. V. Ivannikova	84	93
A Comparative Study of the Duration of Mitosis and Interkinesis in Mouse Tissues by Means of Colchicine and Irradiation – O. I. Epifanova, A. I. Zosimovskaya, L. Ya. Lomakina, N. V. Grushina, and I. N. Smolenskaya	88	96
Diurnal Changes in Mitotic Activity and Distribution of Mitoses in the Gastric Mucosa of Albino Rats – T. B. Timashkevich	92	100
The Role of the Pituitary Hormones in Hyperplasia of the Mammary Glands – V. I. Samoilov	96	104
The Study of Primarily Pancreatized Tissue Cultures from the Heart of the Chick Embryo using Photomicrography – M. I. Klimanova and V. N. Milyutin	100	108
Mitotic Activity of the Corneal Epithelium in Animals Kept at Different Temperatures – I. A. Utkin and O. T. Movchan	103	110
Diurnal Periodicity of Mitosis in Mice after Irradiation with γ-Rays – L. P. Kosichenko	106	114
MORPHOLOGY AND PATHOMORPHOLOGY		
Morphological Changes in the Mucous Membrane of the Small Intestine after Removal of the Sensory Spinal Ganglia – M. D. Zaidenberg	109	118
METHODS		
Long Term Catheterization of the Portal Vein in Cats – S. A. Seleznev and O. P. Khrabrova	112	122

BYULLETEN' ÉKSPERIMENTAL'NOI BIOLOGII I MEDITSINY
EDITORIAL BOARD
A. Ya. Alymov
V. N. Chernigovskii
S. Ya. Kaplanskii
G. N. Kryzhanovskii
(Secretary)
A. V. Lebedinskii
(Assistant Editor)
L. D. Liozner
I. N. Maiskii
V. A. Negovskii
V. V. Parin
(Editor)
V. A. Sanotskii
L. L. Shik
A. A. Solov'ev
N. N. Zhukov-Verezhnikov
(Assistant Editor)

BULLETIN OF EXPERIMENTAL BIOLOGY AND MEDICINE

A translation of BYULLETEN' EKSPERIMENTAL'NOI BIOLOGII I MEDITSINY

A publication of the Academy of Medical Sciences of the USSR

© 1964 CONSULTANTS BUREAU ENTERPRISES, INC.
227 West 17th Street, New York 11, N. Y.

Vol. 55, No. 2, pp. 115-234 March, 1964

CONTENTS

	PAGE ENG.	RUSS.
PHYSIOLOGY		
An Electrophysiological Analysis of the True Pessimum Made on the Neuromuscular Apparatus of Adult Animals—T. A. Adzhimolaev	115	3
Long-Term Fluctuation of Cerebral Electrical Activity as Related to Coagulation of the Connections between Hypothalamus and Hypophysis—N. A. Aladzhalova and A. V. Kol'tsova	119	7
Changes of Electrical Reactivity of the Right and Left Cerebral Hemispheres in School Children after 5–6 Hours Mental Work—Yu. M. Pratusevich and S. D. Khoruzhaya	124	13
Bloodflow Measurements of the Neuromuscular Apparatus of the Internal Carotid Arteries Made by a Photometric Method. Communication II. Control of the Sympathetic Nervous System—G. I. Mchedlishvili, T. Garbulinskii, and A. Gosk	128	17
Variations in Motility of the Small Intestine and the Effect of Impulses in Intestinal Nerves during Stimulation of the Mechanoceptors of a Loop of Small Intestine—Yu. M. Gal'perin and A. D. Volkova	133	22
Changes in the Sodium and Potassium Ions in the Smooth Muscle of the Chick Amnion at Various Stages of its Rhythmic Activity—L. S. Bunkina	138	28
PATHOLOGICAL PHYSIOLOGY AND GENERAL PATHOLOGY		
Peculiarities in the Reflex Reactions of the Thermoreceptors in Febrile Patients—L. M. Kurilova and M. D. Martkoplishvili	141	31
The Effect of Prolonged Pain on the Course of Dark Adaptation by the Optic Analyzer —V. G. Nikolaev and Yu. V. Baltaitis	145	34
The Effect of Ionizing Radiation on the Regenerative Processes Related to Blood Letting —A. D. Strzhizhovskii	148	37
On Changes in the Functional State of the Connective Tissue System Associated with Decortication—K. P. Balitskii	151	41
An Analysis of the Peculiarities and Significance of Changes in the Internal Environment of the Organism During Pregnancy—M. G. Nemets	155	45

(continued)

Annual Subscription $95 **Single Issue $30** **Single Article $15**

All rights reserved. No article contained herein may be reproduced for any purpose whatsoever without permission of the publisher. Permission may be obtained from Consultants Bureau Enterprises, Inc., 227 West 17th Street, New York City, United States of America.

CONTENTS (continued)

	PAGE ENG.	RUSS.
BIOCHEMISTRY AND BIOPHYSICS		
A Comparative Immunoelectrophoretic Study of the Proteins of the Placenta and of the Fetal Blood Serum—D. Muzhnai	160	50
The Effect of Ultrasound and Temperature on the Colloid Properties of Human Serum —F. S. Okolov, S. Kh. Nikolov, R. F. Ivanov, V. I. Kopeikin, and V. A. Poddubnaya	163	53
PHARMACOLOGY		
The Effect of Ganglion-Blocking Agents on the Glossomandibular Reflex—V. V. Maiskii	166	56
The Action of Certain Drugs on the Respiration of the Smooth Muscle of Blood Vessels —F. P. Trinus	170	60
Local Anesthesia in Irradiated Animals—A. V. Lazovskaya	173	63
The Effect of Adrenalin, Ephedrine, and Amphetamine on the Tone of the Coronary Vessels and the Oxygen Absorption of the Myocardium in the Heart Isolated by the Langendorf Principle —I. E. Kisin and V. V. Buyanov	177	68
MICROBIOLOGY AND IMMUNOLOGY		
A Study of the Agglutinating Properties of Phytohemagglutinin Obtained from Sax Variety of Phaseolus vulgaris—M. T. Tsoneva-Maneva and E. P. Ugryumov	182	73
ONCOLOGY		
Characteristics of Carcinogenesis in Muscles with Varying Metabolism —O. M. Pozdnyakov	186	78
Changes in the Subcutaneous Connective Tissue of the Rabbit Ear in the Process of Tumor Development Induced by 9, 10-Dimethyl-1, 2-Benzanthracene — Ou Pao-hsiung	191	83
The Significance of the Lymphoid Apparatus of the Bronchial Tree in the Development of Leukemic Foci in the Lungs Associated with Transplanted Leukemia in Mice —F. B. Ermakova	194	87
On Certain Biological Properties of Mouse Tumors Subjected to Heterotransplantation for Prolonged Periods of Time—A. M. Garin	198	91
The Dynamics of the Functional State of the Neuromuscular Apparatus in Experimental Tumors—A. I. Plaksin and A. Ya. Evtushenko	203	96
EXPERIMENTAL BIOLOGY		
The Nature of the Regulatory Influences Exerted by the Hypothalamus on the Anterior Lobe and Pars Intermedia of the Hypophysis—A. A. Voitkevich and G. A. Ovchinnikova	207	100
Uptake of S^{35}-Methionine in the Epidermis of Chick Embryos and Chicks—S. G. Shtekher	211	104
Relationship of the Development of Radiation Damage and Repair on the Regenerative Activity of Tissues of Rana temporaria Tadpoles—N. F. Gronskaya	215	108
MORPHOLOGY AND PATHOMORPHOLOGY		
Connections between Nerve Cells in Peripheral Autonomic Ganglia. Communication II. Complex Forms of Intraganglionic Connections—G. A. Koblov	219	113
Some Histological Changes of the Skin in Homografts and in Cortisone Therapy Applied to Healthy and Irradiated Rabbits—L. B. Berlin and I. G. Peregudov	223	116
METHODS		
Use of Microorganisms for Determination of the Phagocytic Function of the Reticuloendothelial System—N. A. Kalinina	227	121
A Stereotactic Instrument for Use with Dogs—L. S. Goncharova, E. A. Romanovskaya and S. D. Startsev	230	123
Experimental Uremia as a Model Pathological Condition for the Study of the Morphology of Nerve Endings—V. P. Babmindra and N. S. Kositsyn	233	126

BYULLETEN' ÉKSPERIMENTAL'NOI BIOLOGII I MEDITSINY
EDITORIAL BOARD
A. Ya. Alymov
V. N. Chernigovskii
S. Ya. Kaplanskii
G. N. Kryzhanovskii
(Secretary)
A. V. Lebedinskii
(Assistant Editor)
L. D. Liozner
I. N. Maiskii
V. A. Negovskii
V. V. Parin
(Editor)
V. A. Sanotskii
L. L. Shik
A. A. Solov'ev
N. N. Zhukov-Verezhnikov
(Assistant Editor)

BULLETIN OF EXPERIMENTAL BIOLOGY AND MEDICINE

A translation of BYULLETEN' ÉKSPERIMENTAL'NOI BIOLOGII I MEDITSINY

A publication of the Academy of Medical Sciences of the USSR

© 1964 CONSULTANTS BUREAU ENTERPRISES, INC.,
227 West 17th Street, New York 11, N. Y.

Vol. 55, No. 3, pp. 235-358 June, 1964

CONTENTS

	PAGE ENG.	RUSS.
PHYSIOLOGY		
Varieties of Tonic Muscle Fibers in the Oculomotor Apparatus of the Rabbit—D. P. Matyushkin. .	235	3
The Effect of Disturbance of Acetylcholine Metabolism on Cathode Threshold Parabiosis Curves and on the Functional Stability of the Nerve Trunk—V. I. Alatyrev and L. N. Zefirov	239	6
The Electrophysiological Analysis of the Phenomena of Optimum and Pessimum in the Neuromuscular Apparatus at an Early Age—T. A. Adzhimolaev	243	11
Localization of Functions in the Cerebral Cortex of the Rat. Report 1. Conditioned Reflex Activity in the Rat after Extirpation of the Temporal Cortex—Dang-Thu	248	15
The Effect of the Adrenocorticotropic Hormone on the State of the Skin Receptors—L. V. Turbina .	254	21
PATHOLOGICAL PHYSIOLOGY AND GENERAL PATHOLOGY		
The Effect of Asphyxia on the Electrocortical Effects of Acetylcholine—E. A. Markova	260	27
Changes in the Oxygen Tension in the Cerebral Cortex and Mechanisms of Development of Oxygen Lack in the Brain in Association with Open Pneumothorax and Lung Injury —I. D. Kudrin	262	29
Changes in the Functional Properties and Structure of the Peripheral Nervous System of the Small Intestine Infected Locally with Mycobacterium Tuberculosis—I. E. Gaber and E. Ya. Gilinskii	266	33
The Effect of the Normal and Pathologically Changed Spleen on the Clotting System of the Blood —L. I. Geller	270	38
BIOCHEMISTRY AND BIOPHYSICS		
Activity of Some Serum Enzymes in Experimental Renal Ischemia—Yu. V. Anshelevich and M. Ya. Melzobs.	274	42
Tissue Respiration and Adenosinetriphosphatase Activity in Dogs in Deep Hypothermia —E. P. Stepanyan, R. V. Merkur'eva, and E. L. Geselevich	277	45
The Antiheparin Activity of Hemolyzed Human Red Cells—B. I. Kuznik	280	48
PHARMACOLOGY		
Analysis of the Action of Strophanthin-Like Glucosides on the Collateral Circulation in the Myocardium—V. V. Gatsura and L. A. Bandurina.	284	52

(continued)

Annual Subscription $95 **Single Issue $30** **Single Article $15**

All rights reserved. No article contained herein may be reproduced for any purpose whatsoever without permission of the publisher. Permission may be obtained from Consultants Bureau Enterprises, Inc., 227 West 17th Street, New York City, United States of America.

CONTENTS (continued)

	PAGE ENG.	PAGE RUSS.
A Study of the Role of Various Divisions of the Central Nervous System in the Mechanism of the Convulsive Action of Metrazol—R. Yu. Il'yuchenok and R. U. Ostrovskaya	288	55
Analysis of the Depressant Action of D,L- and D-Cycloserine on the Central Nervous System —N. M. Smol'nikova	293	60
MICROBIOLOGY AND IMMUNITY		
The Submicroscopic Structure of Pasteurella pestis EV—B. A. Mishchenko and S. I. Kharlampovich	296	63
Detection of the Capsular Antigen of Pasteurella pestis in a Dialyzate—M. I. Levi	299	65
Specific and Nonspecific Biochemical Phases of Immunogenesis—M. I. Ravich-Shcherbo and L. G. Prokopenko	303	69
Incomplete Antibodies Against Sheep's Red Cells in Human Serum—N. I. Kuznetsova	307	73
ONCOLOGY		
Antigenic Simplification of Human Stomach Tissues in Carcinoma—G. I. Avdeev and I. S. Bashkaev	311	77
A Comparative Study of the Antigenic Structure of Tumor Tissue and Homologous Normal Tissue. Report 4. Immunological Characteristics of the Antigen—Antibody Complex —M. S. Lomakin and E. V. Sokolova	313	79
The Effect of Parasympatheticotropic Drugs on the Phagocytic Power of the Leukocytes in Cancer Patients (Preliminary Communication) —N. V. Puchkov and P. P. Firsova	318	85
EXPERIMENTAL BIOLOGY		
Regeneration and Compensatory Hypertrophy of the Lungs in Tadpoles—L. D. Liozner, A. G. Babaeva, L. K. Romanova, and G. V. Kharlova	320	87
Cultivation of Cells in Vitro as Isolated Colonies—A. F. Zakharov, E. P. Ugryumov, and I. I. Podoplelov	324	91
A Cytological Analysis of the Testicular Tissue of the Monkey Grown in Vitro as a Trypsinized Monolayer Culture—L. B. Tsypkin	329	96
The Effect of Desoxyribonucleoproteins of the Regenerating Rabbit's Liver on the Regeneration of Mouse Liver—I. N. Yashina	333	101
Binuclear Cells and Proliferative Processes in the Intact and Regenerating Liver of Rats —Z. A. Ryabinina	337	105
The Effect of Pain Stimulation on the Mitotic Activity of the Epithelium of the Small Intestine in Hypophysectomized Rats—S. S. Raitsina	341	109
MORPHOLOGY AND PATHOMORPHOLOGY		
Association Fibers of Cortical Representation Zones 1 and 2 of the Splanchnic Nerve in the Cat —V. Yu. Ermolaeva	345	114
The Pathogenesis of Neurodystrophy (Experimental Model of Parodontosis)—É. D. Bromberg and O. A. Serdyukova	348	117
METHODS		
An Operation on Dogs for Obtaining Pure Pancreatic Juice in Long Experiments—L. S. Fomina	352	122
ANNIVERSARIES		
Vasilii Vasil'evich Parin (on His 60th Birthday)	355	125

BYULLETEN' ÉKSPERIMENTAL'NOI BIOLOGII I MEDITSINY
EDITORIAL BOARD

A. Ya. Alymov
V. N. Chernigovskii
S. Ya. Kaplanskii
G. N. Kryzhanovskii
(Secretary)
A. V. Lebedinskii
(Assistant Editor)
L. D. Liozner
I. N. Maiskii
V. A. Negovskii
V. V. Parin
(Editor)
V. A. Sanotskii
L. L. Shik
A. A. Solov'ev
N. N. Zhukov-Verezhnikov
(Assistant Editor)

BULLETIN OF EXPERIMENTAL BIOLOGY AND MEDICINE

A translation of BYULLETEN' EKSPERIMENTAL'NOI BIOLOGII I MEDITSINY

A publication of the Academy of Medical Sciences of the USSR

© 1964 CONSULTANTS BUREAU ENTERPRISES, INC.
227 West 17th Street, New York 11, N. Y.

Vol. 55, No. 4, pp. 359-476 June, 1964

CONTENTS

	PAGE ENG.	RUSS.
PHYSIOLOGY		
Functional Organization of the Bulbar Vasomotor Center. Communication I. Excitability of the Neurone of the Pressor and Depressor Zones in Different Functional Conditions – A. M. Blinova, N. K. Saradzhev, and F. D. Sheikhon	359	3
The Effect of Hypercapnia on the Blood Supply to the Heart – I. N. Kiryushina	366	9
The Relationship of Electrical to Metabolic Activity in the Olfactory Bulbs of Hibernating Animals – M. B. Shtark	370	14
PATHOLOGICAL PHYSIOLOGY AND GENERAL PATHOLOGY		
The Auricular Rhythm in Patients with the Morgagni-Adams-Stokes Syndrome Before and After Electrical Cardiac Stimulation – Yu. I. Bredikis and I. G. Kostenko	375	19
Damage to the Frontal and Parietal Lobes of the Brain and Conditioned Reflexes in Unconstrained Subjects – A. N. Sovetov	378	22
Parotid Gland Function after Partial Extirpation – R. S. Rizhinashvili	381	26
The Role of Stretch Receptors of the Left Ventricle in Reflex Hemodynamic Changes Due to Myocardial Ischemia – A. V. Dokukin	384	29
The Effect of Extensive Resection of the Proximal and Distal Portions of the Small Intestine on Canine Gastric Secretion – B. I. Sabsai	387	32
A Gastric Ulcer in Rats of Various Ages – V. D. Rozanova	391	37
Motility of the Gut and Evacuation in Experimental Lead Poisoning – A. A. Mambeeva	395	41
BIOCHEMISTRY AND BIOPHYSICS		
Esterase Activity of the Blood of Various Animal Species – V. A. Filov	398	45
The Influence of Thyroidin on Tissue Cholesterol in Experimental Atherosclerosis – A. L. Myasnikov and V. F. Zaitsev	400	47
An Immunologic Study of the Lactogenic Hormone – V. M. Dil'man, E. P. Ivanteeva, and B. N. Sofronov	403	49

(continued)

Annual Subscription $95 **Single Issue $30** **Single Article $15**

All rights reserved. No article contained herein may be reproduced for any purpose whatsoever without permission of the publisher. Permission may be obtained from Consultants Bureau Enterprises, Inc., 227 West 17th Street, New York City, United States of America.

CONTENTS (continued)

	PAGE ENG.	PAGE RUSS.
PHARMACOLOGY		
Participation of the Stem Portions of the Brain in Realizing the Effect of Certain Pharmacological Agents on the Periodic Contractions of the Stomach – L. L. Grechishkin	406	53
The Effect of Chlor-Iso-Propamide on Experimentally Induced Resistance to Insulin – S. G. Genes and N. G. Lesnoi	410	56
On the Cholinergic Reactions and Sympathoadrenal Activity Associated with Experimental Hyperthyroidism in White Rats – B. B. Voznesenskii and N. K. Khitrov	415	61
MICROBIOLOGY AND IMMUNITY		
The Transformation of Staphylococci by Killed Cultures of Salmonella typhimurium and Listeria monocytogenes Resistant to 75,000 Units/Ml of Streptomycin – V. N. Polshkova	419	66
The Isolation of Microorganisms (PPLO) of Pleuropneumonia-like Illness from Tissue Cultures – V. S. Levashev and V. Ya. Shevlyagin	422	70
The Reaction of Complement Fixation as a Method for Serologically Characterizing Antitissue Sera – A. K. Saakov	425	73
The Formation of Tissue Hemolysins in Liver Extracts of White Rats Fed with Linseed Oil – V. V. Antipov	429	77
ONCOLOGY		
On Cysts in Mice of the Low Cancer Line C57BL – V. M. Zhdanov and V. A. Parnes	433	82
Morphological Changes in Mammary Gland Cancer of Rats (RMK-1) Under Conditions of Repeated Transplants – V. P. Konoplev and N. D. Lagova	442	91
A Comparative Study of the Antigenic Structure of Tumor and Homologous Normal Tissue. Report V. Investigation of the Antigenic Properties of Guerin's Carcinoma, Normal Uterus, and Rat Erythrocytes, Using the Method of Complement Fixation and the Method of Tissue Cultures – M. S. Lomakin and E. V. Sokolova	445	94
Development of Intralienal Transplants of Ovary under Conditions of Mechanical Stimulation of the Hypothalamus – Yu. N. Bordyushkov	451	100
EXPERIMENTAL BIOLOGY		
Inductive Properties of Transplanted Transitional Rat Epithelium – A. Ya. Fridenshtein and K. S. Lalykina	454	104
MORPHOLOGY AND PATHOMORPHOLOGY		
A Histochemical Determination of the Denaturation of the Proteins of the Nerve Cell Induced by Alcohol – V. V. Portugalov, I. B. Krasnov, and T. V. Ball'	458	108
Changes in the Hypothalamic Nuclei in Experimental Allergy – D. E. Al'pern and E. V. Sidorenko	461	110
Histochemical Features of Lipid Metabolism and Lipolytic Activity in Old Animals – F. L. Leites	464	114
METHODS		
Modification of Nauta's Method – I. A. Zambrzhitskii	468	119
A Method for the Study of Renal Filtration – A. K. Mashkeev, B. M. Mirzoev, Yu. E. Vel'tishchev, and M. P. Matveev	471	121
A Surgical Approach to the Stellate Ganglion – S. P. Semenov	474	124

BYULLETEN' ÉKSPERIMENTAL'NOI BIOLOGII I MEDITSINY
EDITORIAL BOARD

A. Ya. Alymov
V. N. Chernigovskii
S. Ya. Kaplanskii
G. N. Kryzhanovskii
(Secretary)
A. V. Lebedinskii
(Assistant Editor)
L. D. Liozner
I. N. Maiskii
V. A. Negovskii
V. V. Parin
(Editor)
V. A. Sanotskii
L. L. Shik
A. A. Solov'ev
N. N. Zhukov-Verezhnikov
(Assistant Editor)

BULLETIN OF EXPERIMENTAL BIOLOGY AND MEDICINE

A translation of BYULLETEN' ÉKSPERIMENTAL'NOI BIOLOGII I MEDITSINY

A publication of the Academy of Medical Sciences of the USSR

© 1964 CONSULTANTS BUREAU ENTERPRISES, INC.
227 West 17th Street, New York 11, N. Y.

Vol. 55, No. 5, pp. 477-590 July, 1964

CONTENTS

	PAGE ENG.	PAGE RUSS.
Future Progress in the Field of Experimental Biology and Medicine	477	3
Sympathetic Origin of Spontaneous Impulses Recorded in a Mixed Nerve of the Frog – M. V. Kirzon and F. V. Kopytova	478	5
Electrophysiological Evidence of the Connections Between the Globus Pallidus and other Divisions of the Central Nervous System in Man. Report 2. Connections Between the Globus Pallidus and the Spinal Centers and Autonomic Formations of the Brain Stem – I. M. Gil'man, I. M. Irger, E. Yu. Rivina, and F. P. Yasinovskaya	482	9
Connections Between the Rostral Division of the Reticular Formation and the Small Intestine – O. P. Dobromyslova and A. A. Zubkov	486	13
Vasomotor Reactions of the Abdominal Viscera at Different Arterial Pressures – V. P. Kulagina	489	16
Lipoprotein Lipase as Humoral Agent of the Physiological Anticlotting System – B. A. Kudryashov, G. G. Bazaz'yan, S. S. Trapeznikova, and V. N. Nosova	493	20
The Physiology of Membrane Digestion. Report 4. Intravascular Hydrolysis of Starch in the Frog – A. M. Ugolev and V. V. Chernousova	497	25
PATHOLOGICAL PHYSIOLOGY AND GENERAL PATHOLOGY		
Disturbance and Restoration of Motor Functions in Ducks after Hemisection of the Spinal Cord – S. N. Ivanova	500	29
An Experimental Study of the Portal Circulation in the Agony Period and During Resuscitation from Clinical Death – Yu. M. Levin	504	33
Effect of the Degree of Myocardial Hypertrophy Associated with an Experimental Heart Defect on the Resistance to Altitude Hypoxia – Yu. M. Repin	508	37
Changes in the Erythrocytes During Prolonged Fasting and Subsequent Feeding – Yu. L. Shapiro	511	40
Stimulation of the Mechanoreceptors of the Intestinal Wall as a Cause of Dynamic Intestinal Obstruction – Yu. M. Gal'perin	515	45
The Effect of Pasteurella pestis Toxin on the Histamine-Binding Power of the Blood of Albino Rats and Guinea Pigs – I. V. Domaradskii and V. I. Krupenina	518	48
The Effect of ACTH on the Development of the Arthus Phenomenon and on the Morphological Composition of the Inflammatory Exudate – E. M. Mikhailova	521	51

Annual Subscription $95 **Single Issue $30** **Single Article $15**

(continued)

All rights reserved. No article contained herein may be reproduced for any purpose whatsoever without permission of the publisher. Permission may be obtained from Consultants Bureau Enterprises, Inc., 227 West 17th Street, New York City, United States of America.

CONTENTS (continued)

	PAGE ENG.	PAGE RUSS.
BIOCHEMISTRY AND PIOPHYSICS		
Changes in the Protein Composition of Skeletal, Cardiac, and Smooth Muscle after Castration – V. A. Yur'ev, Z. N. Zhakhova, and N. I. Lopatina	523	54
Role of the Contractile Proteins in Determining the Resistance of Muscle Tissue to External Agents – G. I. Grigor'eva	526	57
Effect of the Hypophyseal Preparation Adiposin on the Lipolytic Activity of Adipose Tissue and on the Serum Concentration of Free Higher Fatty Acids – S. M. Leites and N. K. Davtyan	529	60
Effect of Adrenalectomy on Tyrosine Retention by the Liver and on its Blood Level in Dogs and Rats – T. N. Protasova and V. P. Fedotov	532	63
Changes in the Activity of Some Serum Enzymes During the Action of Strong Stimuli – M. L. Belen'kii, A. F. Blyuger, and Ya. Ya. Shuster	535	67
Pathogenetic Mechanisms of the Pyrexial Reaction to Streptococcal Antigens – V. I. Pytskii	538	69
The Biological Action of High Energy (500 Mev) Protons – Yu. I. Moskalev and I. K. Petrovich	542	73
PHARMACOLOGY		
Paramion Contracture of the Dorsal Muscle of the Leech During the Action of Anti-Cholinesterase Drugs – A. I. Podlesnaya	546	78
Effect of Calcium Chloride and Magnesium Sulfate on the Development of Rigor Mortis – S. V. Osipova	550	82
The Effect of Single and Repeated Doses of Tetracyclines on the Phagocytic Function of the Reticulo-Endothelial System – N. A. Kalinina and G. Ya. Kivman	552	84
MICROBIOLOGY AND IMMUNITY		
Genetic Recombinations in Intestinal Bacteria. Communication 1. Hybridization Between Escherichia coli and Shigella flexneri – A. P. Pekhov and A. A. Abidov	555	88
Detection of Virus Antigen in an Infected Cell Using I^{131}-Labeled Antibodies – V. M. Stakhanova and E. M. Zhantieva	558	91
ONCOLOGY		
A Study of the Karyotype of a Monolayer Culture of Carcinoma of the Human Stomach E. P. Ugryumov and M. T. Tsoneva-Maneva	560	93
Sex Differences in the Excretion of O-Aminoazotoluene by Mice – G. A. Belitskii	565	96
EXPERIMENTAL BIOLOGY		
Laws of Growth of Mammary Gland Tissues in In Vivo Culture – Z. S. Khlystova	569	101
Diurnal Rhythm of Cell Division in Tissue Cultures – N. I. Zaskal'ko	572	104
The Pars Intermedia of the Hypophysis During Salt Loading – É. L. Soboleva	577	108
A "Hybrid" Antigen in Monkeys (Theropithecus gelada × Papio hamadryas) – B. V. Konyukhov, N. P. Bochkov, and M. V. Sazhina	581	111
METHODS		
An Experimental Model for the Study of the Interaction Between the Cerebral Cortex and Subcortical Formations – A. M. Klochkov	585	115

BYULLETEN' ÉKSPERIMENTAL'NOI BIOLOGII I MEDITSINY
EDITORIAL BOARD

A. Ya. Alymov
V. N. Chernigovskii
S. Ya. Kaplanskii
G. N. Kryzhanovskii
(Secretary)
A. V. Lebedinskii
(Assistant Editor)
L. D. Liozner
I. N. Maiskii
V. A. Negovskii
V. V. Parin
(Editor)
V. A. Sanotskii
L. L. Shik
A. A. Solov'ev
N. N. Zhukov-Verezhnikov
(Assistant Editor)

BULLETIN OF EXPERIMENTAL BIOLOGY AND MEDICINE

A translation of **BYULLETEN' EKSPERIMENTAL'NOI BIOLOGII I MEDITSINY**

A publication of the Academy of Medical Sciences of the USSR

© 1964 CONSULTANTS BUREAU ENTERPRISES, INC.
227 West 17th Street, New York 11, N. Y.

Vol. 55, No. 6, pp. 591-704 June, 1964

CONTENTS

	PAGE ENG.	RUSS.
PHYSIOLOGY		
Summation and Adaptation in Stimulation of the Motor Cortex in Adult and Newborn Animals —D. P. Matyushkin	591	3
The Position of the Visceral Afferent Pathways in the Internal Capsule—O. G. Baklavadzhyan	596	8
Electrical Activity of the Cerebral Hemispheres after Section of the Brainstem (Bremer's Method) in Dogs of Various Ages —I. I. Gokhblit and I. A. Komienko	601	14
Localization of Function in the Cerebral Cortex of the Rat. Communication II. Conditioned Reflex Activity of Rats after Removal of the Occipital Cortex—Dang-Tkhu	606	19
The Effect of Destruction of the Posterior Hypothalamus on the Basal Metabolic Rate of Rabbits— E. A. Korneva	611	25
Investigation of the Mechanism of Chemoreception. Report V. The Effect of Tetraethylamnonium on the Ability of the Small Intestine Receptors to Perceive Various Chemical Stimuli—N. A. Anikina	614	29
On the Causes of Automatic Excitation of the Frog Respiratory Center—Z. S. Dontsova, V. E. Biryukov, and N. A. Bondarenko	619	34
PATHOLOGICAL PHYSIOLOGY AND GENERAL PATHOLOGY		
The Significance of Overexcitation of the Central Nervous System in the Genesis of Experimental Hypertensive Stroke—L. V. Krushinskii, A. Kh. Kogan, L. P. Dobrokhotova, and N. P. Modenova	624	40
Physiological Analysis of Dimedrol's Prophylactic Action in Hemoheterotransfusion Shock —K. A. Shaimardanov	627	44
Change in the Body Temperature of White Mice Following Total Irradiation with Roentgen Rays —K. K. Poplavskii	632	48
The Effect of Hypovitaminosis C on the Course of Experimental Intestinal Infections in Monkeys — Z. K. Stasilevich	635	52
BIOCHEMISTRY AND BIOPHYSICS		
Evidence of the Presence of Insulin in Urine—L. L. Liberman	639	56
Effect of Thyroid Hormone on Blood and Liver Glucose-6-Phosphatase Activity—G. A. Dosta	642	59

(continued)

Annual Subscription $95 **Single Issue $30** **Single Article $15**

All rights reserved. No article contained herein may be reproduced for any purpose whatsoever without permission of the publisher. Permission may be obtained from Consultants Bureau Enterprises, Inc., 227 West 17th Street, New York City, United States of America.

CONTENTS (continued)

	PAGE ENG.	PAGE RUSS.
Effects of Brief and Prolonged Stimulation of the Hypothalamus on the Free and Combined Cholesterol Contents of Blood—Yu. N. Bordyushkov and L. Kh. Garkavi	645	61
Oscillatory Properties of the Human Body—V. L. Karpman and G. V. Sadovskaya	649	65
Glycogen, Lactic Acid, and Pyruvic Acid Contents of the Myocardium under Conditions of Compensatory Hyperfunction—A. P. Bozhko	653	69
PHARMACOLOGY		
Amytal Resistance in Animals Adapted to Cold, and Some Features Peculiar to the Mechanism of Its Narcotic Action—S. P. Maslov and I. N. Ivashkina	656	72
N, N^1—Malonyl—Bis—Ethylenimine (MEI) and Some of Its Biological Properties —L. B. Borisov, V. G. Beilin, L. B. Dashkevich, and G. S. Yakovleva	660	76
MICROBIOLOGY AND IMMUNITY		
Conditioned Reflex Regulation of the Serum Globulin Level—V. I. Luk'yanenko, B. A. Flerov, O. Ya. Megreladze, and S. M. Kuznetsov	664	80
Biological Activity of the Polysaccharide Glucan—G. E. Vaisberg, A. I. Braude, T. V. Golosova, V. M. Kuznetsova, and M. E. Preobrazhenskaya	667	84
Transplacental (Passive) Transmission of Plague Antibodies in the Great Gerbil. Serological Investigations in Plague—M. I. Levi and Yu. G. Suchkov	670	88
EXPERIMENTAL BIOLOGY		
The Influence of STH and ACTH on Repair Processes in Wounds—A. A. Voitkevich	674	92
Regeneration of the Liver in Monkeys—Z. A. Ryabinina and L. B. Ustina	678	97
MORPHOLOGY AND PATHOMORPHOLOGY		
Condition of the Cerebellar Nuclei after Extirpation of the Cortex and the Total Removal of One of the Cerebral Hemispheres—K. I. Narovchatova	682	102
A Fluorescence-Microscopy Study of the Early Stages of Experimental Myocardial Infarct —V. S. Kondrat'ev and E. F. Lushnikov	688	105
METHODS		
A Chronic Gastric Fistula for Rats—N. N. Lebedev, Yu. N. Dorosheva, A. I. Bartyzel, and V. G. Shmakov	694	111
Permanent Set-up for Recording the Kinetocardiogram (KCG) in Animals —I. E. Oranskii and A. A. Sukhanov	697	113
Kymographic Recording of the Pressure in the Right Ventricle of Rabbits and Cats —L. P. Cherkasskii	700	116

BYULLETEN' ÉKSPERIMENTAL'NOI BIOLOGII I MEDITSINY
EDITORIAL BOARD

A. Ya. Alymov
V. N. Chernigovskii
S. Ya. Kaplanskii
G. N. Kryzhanovskii
(Secretary)
A. V. Lebedinskii
(Assistant Editor)
L. D. Liozner
I. N. Maiskii
V. A. Negovskii
V. V. Parin
(Editor)
V. A. Sanotskii
L. L. Shik
A. A. Solov'ev
N. N. Zhukov-Verezhnikov
(Assistant Editor)

BULLETIN OF EXPERIMENTAL BIOLOGY AND MEDICINE

A translation of BYULLETEN' EKSPERIMENTAL'NOI BIOLOGII I MEDITSINY

A publication of the Academy of Medical Sciences of the USSR

© 1964 CONSULTANTS BUREAU ENTERPRISES, INC.
227 West 17th Street, New York 11, N. Y.

Vol. 56, No. 7, pp. 705-826 August, 1964

CONTENTS

	PAGE ENG.	RUSS.
PHYSIOLOGY		
A Mechanism of the Diffuse Component of the Conditioned-Reflex Reaction—T. S. Naumova, N. N. Lyubimov, and L. G. Trofimov	705	3
Relationship Between the Paired Hearing Centers of the Dog's Brain—V. M. Mosidze	710	8
The Effect of Insulin Hypoglycemia on the Strength-Duration Curve of the Spinal Reflex Arc in the Cat—Yu. P. Pushkarev	714	12
The Cardiac Component of the Orienting Reflex at Different Age Periods—S. I. Enikeeva	717	15
Reflex Changes in Respiration During a Rise in Pressure in the Thoracic Duct—I. A. Potapov	722	20
Physiological Reactions of Man to Acceleration of Maximal Duration and Intensity in the Spine-Chest Axis. Report 1. Maximal Tolerance and Main Trend of the Physiological Reactions—A. S. Barer, G. A. Golov, V. B. Zubavin, and E. P. Tikhomirov	726	24
Changes in Nuclear Size During Development of the Human Chorion and Placenta —A. I. Brusilovskii	731	29
PATHOLOGICAL PHYSIOLOGY AND GENERAL PATHOLOGY		
On Certain Characteristics of Higher Nervous Activity in Animals Subjected to Antenatal Ionizing Radiation. Report VI. Characteristics of Higher Nervous Activity During the Postnatal Ontogenesis of Rabbits Irradiated with Roentgen Rays in the Period of Organogenesis—I. A. Piontkovskii and R. I. Kruglikov	736	35
On the Significance of the Functional State of the Left Auricle Myocardium in the Pathogenesis of Pulmonary Hypertension in Man—A. A. Semenov	740	39
The Effect of Direct Current Poles on the Conductivity of Cardiac Muscle Altered by Necrotic Tissue—O. D. Kurmaev and I. Sh. Makaleev	745	44
Reflexes from Mechanoreceptors of the Upper Respiratory Tract to the Heart During Experimental Tuberculosis of the Larynx—R. A. Fel'berbaum	747	46
The Effect of Novocain Hydrolysis Products on the Course and Reverse Development of Atherosclerosis Under Experimental Conditions—A. F. Ryzhova	753	52
BIOCHEMISTRY AND BIOPHYSICS		
Effect of Severe Stress on the β-Lipoprotein Content of Blood Serum and of Some Organs —A. F. Blyuger and Ya. Ya. Shuster	757	56

Annual Subscription $95 **Single Issue $30** **Single Article $15**

All rights reserved. No article contained herein may be reproduced for any purpose whatsoever without permission of the publisher. Permission may be obtained from Consultants Bureau Enterprises, Inc., 227 West 17th Street, New York City, United States of America.

CONTENTS (continued)

	PAGE ENG.	PAGE RUSS.
Carnosine and Anserine Contents of Different Parts of Normal and Denervated Plantaris Muscle of Rabbits—V. I. Telepneva	761	60
PHARMACOLOGY		
Varying Intensity of the M- and N-Effects in Poisoning with Different Anticholinesterase Agents—V. B. Prozorovskii	764	64
MICROBIOLOGY AND IMMUNOLOGY		
A Study of the Initial Interaction of the Sendai Virus with Cells, Using the Method of Autoradiography—V. M. Zhdanov, I. B. Zbarskii, A. G. Bukrinskaya, and G. P. Ramenskaya	767	67
Genetic Recombinations in Intestinal Bacteria. Report II. Study of the Genetic Structure of Dysentery Bacillus Hybrids (Biochemical Properties and Motility)—A. A. Abidov	772	72
The Inheritance of Resistance to Plague in Pallasiomys Meridianus—M. I. Levi, P. I. Zinin, A. I. Shtel'man, D. T. Shiryaev, N. P. Mironov, and F. D. Chikrizov.	775	75
On Blood Plasma Coagulation by Plague and Pseudotuberculosis Microbes —I. V. Domaradskii, G. A. Yaromyuk, L. V. Vasyukhina, and A. V. Korotaeva	779	79
ONCOLOGY		
Pathohistological Changes in the Liver and Kidneys of Animals with Transplanted Tumor After Injection of the Corresponding Antiorgan Sera—L. L. Khundanova	782	83
EXPERIMENTAL BIOLOGY		
The Effect of Short Term and Chronic Irradiation on Liver Regeneration in White Mice —G. S. Strelin and I. V. Shiffer.	786	87
Regenerative Processes in the Liver of Pigs Following Partial Hepatectomy —V. F. Sidorova	790	91
The 24-Hour Rhythm of Mitotic Activity During Reparative Regeneration of the Salivary Gland, Liver and Epidermis in White Mice and Rats—N. V. Krasil'nikova	794	96
On Certain Changes in the Degree of Corneal Tissue Differentiation Under Experimental Conditions—V. S. Belyaev	797	99
The Hypothalamic Factor Influencing Secretion of the Luteinizing Hormone of the Anterior Hypophyseal Lobe—Ya. M. Kabak, E. V. Sokolova, and E. A. Ivanova	802	104
Development of the Motor Innervation of the Musculature of Various Portions of the Rat Stomach in Ontogenesis. Communication II. Ontogenesis of the Differential Influence of the Vagus on Gastric Smooth Muscle—S. E. Delen'kaya	806	107
Modification of the Method of Recording Gastro-Intestinal Motility—S. V. Sholokhov	810	112
Automatic Photo-Electric Device for the Study of Conditioned Reflexes in Small Animals —E. P. Kornil'ev and A. P. Korolebskii	812	113
A Study of the Activity of the Muscles of Mastication by Myography and Myotonography —B. Kh. Kurlyand	816	116
A Method of Recording the Local Electroretinogram—R. B. Zaretskaya	820	123

BYULLETEN' ÉKSPERIMENTAL'NOI BIOLOGII I MEDITSINY
EDITORIAL BOARD

A. Ya. Alymov
V. N. Chernigovskii
S. Ya. Kaplanskii
G. N. Kryzhanovskii
(Secretary)
A. V. Lebedinskii
(Assistant Editor)
L. D. Liozner
I. N. Maiskii
V. A. Negovskii
V. V. Parin
(Editor)
V. A. Sanotskii
L. L. Shik
A. A. Solov'ev
N. N. Zhukov-Verezhnikov
(Assistant Editor)

BULLETIN OF EXPERIMENTAL BIOLOGY AND MEDICINE

A translation of BYULLETEN' ÉKSPERIMENTAL'NOI BIOLOGII I MEDITSINY

A publication of the Academy of Medical Sciences of the USSR

© 1964 CONSULTANTS BUREAU ENTERPRISES, INC.
227 West 17th Street, New York 11, N. Y.

Volume 56, Number 8 August, 1963

CONTENTS

	PAGE ENG.	RUSS.
PHYSIOLOGY		
Effect of Load and Initial Length on the Work of the Muscle Trabecula—M. G. Udel'nov and A. P. Fedorova	827	3
Reflex Regulation of the "Spontaneous" Activity of the Chemoreceptors of the Tongue —A. I. Esakov	831	7
Investigation of Taste Sensation in Human Subjects during Prolonged Inhalation of Oxygen—N. S. Zaiko, M. I. Kuznetsov, and N. A. Chelnokova	835	11
Reflex Reactions of Thermoreceptors—T. M. Dmitrieva, L. M. Kurilova, and N. A. Sukhovskaya	838	14
Localization of Functions in the Cerebral Cortex of the Rat. Report 3. Optic and Auditory Conditioned Reflexes in Rats after Preliminary Extirpation of the Cortex of the Temporal and Occipital Lobes at an Early Age—Dang Tkhu	841	17
Insular Function of Mother and Fetus—L. L. Liberman and Yu. A. Yaroshevskii	845	21
Changes in the Electrical Activity of a Single Node of Ranvier of an Isolated Nerve Fiber Due to Novocain—V. I. Belyaev	848	24
Body Reactions to Prolonged Coriolis Acceleration—N. I. Arlashchenko, B. B. Bokhov, V. E. Busygin, N. A. Volokhova, Yu. G. Grigor'ev, B. I. Polyakov, and Yu. V. Farber	852	28
Physiological Human Reactions to Acceleration Along the Vertebrosternal Axis. Changes in the System of External Respiration—A. S. Barer, G. A. Golov, and E. I. Sorokina	856	33
Effect of Prednisone on Secretion of Enzymes in the Alimentary Tract—M. F. Nesterin and V. N. Anokhin	860	37
PATHOLOGICAL PHYSIOLOGY AND GENERAL PATHOLOGY		
The Effect of Training on the Resistance of Chilled Rats to Anemia of the Brain —N. V. Korostovtseva	866	44
Oxygen Regimen of the Liver in Severe Traumatic Shock—S. A. Seleznev	868	46
The Relationship between Certain Physiological and Histomorphological Changes in the Neuromuscular Apparatus of Animals Associated with Aging —S. I. Fudel'-Osipova and G. A. Rodionov	872	50

Annual Subscription $95 **Single Issue $30** **Single Article $15**

All rights reserved. No article contained herein may be reproduced for any purpose whatsoever without permission of the publisher. Permission may be obtained from Consultants Bureau Enterprises, Inc., 227 West 17th Street, New York City, United States of America.

CONTENTS (continued)

	PAGE ENG.	PAGE RUSS.
BIOCHEMISTRY AND BIOPHYSICS		
Immunochemical Characteristics of Canine Serum Albumin in Ontogenesis —A. V. Afanas'eva	877	54
Hexokinase Activity of Homogenates of Brain and Cardiac and Striated Muscle of Narcotized Animals—N. A. Sveshnikova	880	57
Changes in the Content of Some Amino Acids in the Blood and Urine Following Exposure to Low Temperature and Ionizing Radiation—Yu. K. Ledentsov and E. M. Larionova	883	60
Phosphatases of the Human Placenta—I. I. Sharov	887	64
The Role of Various Sections of the Digestive Tract in the Excretion of Radioactive Calcium—D. I. Bel'chenko	891	68
The Effect of Long-Wave Diathermy on the Absorptive Activity of the Stomach and Intestine—V. R. Faitel'berg-Blank	894	70
PHARMACOLOGY		
The Effect of Gamma-Aminobutyric Acid on the Potassium and Acetylcholine Contractions of Skeletal Muscle—P. E. Dyablova	898	75
Some Data on the Role of Higher Divisions of the Brain in the Reaction of Respiration to the Administration of Aminazine—E. A. Korneva and M. I. Yakovleva	900	77
MICROBIOLOGY AND IMMUNOLOGY		
Study of the Monoaminoxidase Activity of Mycobacteria B_5—G. N. Pershin and V. V. Nesvad'ba	904	81
ONCOLOGY		
On Transplantation of "Radiation" Tumors of the Mammary Glands in Rats —V. I. Ponomar'kov	908	85
EXPERIMENTAL BIOLOGY		
The Development of Capillaries in Post-Traumatic Regeneration of the Skeletal Muscle Tissue of Mammals—A. V. Grigor'ev	911	89
The Daily Mitotic Rhythms in Different Organs of White Mice and Rat Embryos —N. V. Krasil'nikova	915	93
Quantitative Characteristics of Oocytes in the Ovaries of White Rats Suffering from Acute Radiation Sickness—V. Ya. Karmysheva	919	97
Changes in the Sorption Capacity and Isoelectric Point of Thyroid Cells Subjected to the Action of 6-Methylthiouracil—B. V. Aleshin and Yu. V. Krivobok	923	101
MORPHOLOGY AND PATHOMORPHOLOGY		
Anatomical Connection between the Cortical Areas of the Splanchnic Nerve and the Premotor, Motor, and Limbic Regions in the Cat—V.Yu. Ermolaeva	928	107

BYULLETEN' ÉKSPERIMENTAL'NOI BIOLOGII I MEDITSINY
EDITORIAL BOARD

A. Ya. Alymov
V. N. Chernigovskii
S. Ya. Kaplanskii
G. N. Kryzhanovskii
(Secretary)
A. V. Lebedinskii
(Assistant Editor)
L. D. Liozner
I. N. Maiskii
V. A. Negovskii
V. V. Parin
(Editor)
V. A. Sanotskii
L. L. Shik
A. A. Solov'ev
N. N. Zhukov-Verezhnikov
(Assistant Editor)

BULLETIN OF EXPERIMENTAL BIOLOGY AND MEDICINE

A translation of BYULLETEN' EKSPERIMENTAL'NOI BIOLOGII I MEDITSINY

A publication of the Academy of Medical Sciences of the USSR

© 1964 CONSULTANTS BUREAU ENTERPRISES, INC.
227 West 17th Street, New York 11, N. Y.

Volume 56, Number 9 September, 1963

CONTENTS

	PAGE ENG.	RUSS.
PHYSIOLOGY		
Effect of Hypercapnia on the Spontaneous and Evoked Potentials in the Intact and Isolated Cerebral Cortex in Rabbits – I. S. Repin	935	3
Effect of the Peripheral Vestibular Afferent Impulses on Synchronization of Slow Cortical Rhythms – I. M. Gil'man	939	8
Individual Variations in the Development of Motor Activity of Rabbits in the Early Postnatal Period – D. B. Malakhovskaya	944	13
Effect of Thermal Stimulation of the Skin on the Functional State of the Optic Analyzer – L. M. Kurilova	947	17
Effect of Electrical Stimulation of the Hypothalamus on the Gastric Secretion – A. F. Kosenko	950	21
Reflex Effects of Pressure Changes in the Chambers of the Frog's Heart on the Peripheral Blood Flow and the Heart Rate – B. S. Kulaev and E. A. Strel'nikova	953	24
The Antiplasmin Defensive Reflex System – B. A. Kudryashov and T. M. Kalishevskaya	958	29
PATHOLOGICAL PHYSIOLOGY AND GENERAL PATHOLOGY		
Direct Reactions of the Nervous System to Ionizing Radiation – A. B. Tsypin	962	34
Electrophysiological Investigation of the Flow of Impulses in the Depressor Nerve During the Action of Ionizing Radiation – Chang Ming-hua	965	37
Changes in the Cortical Electrical Activity of the Rabbit During Exposure to an UHF Electromagnetic Field. Report 2. The Direct Action of the UHF Field on the Central Nervous System – Yu. A. Kholodov	969	42
Reversibility of Cardiac Hypertrophy Due to Altitude Hypoxia – Yu. M. Repin	973	46
Changes in the Blood Glutathione Concentration in Experimental Myocardial Infarction in Dogs – L. Ya. Fishchenko, E. M. Neiko, and M. G. Shevchuk	976	50
BIOCHEMISTRY AND BIOPHYSICS		
Transaminase Distribution in the Brain of Newborns – D. S. Zaprudskaya and N. G. Dorosheva	979	54

(continued)

Annual Subscription $95 **Single Issue $30** **Single Article $15**

All rights reserved. No article contained herein may be reproduced for any purpose whatsoever without permission of the publisher. Permission may be obtained from Consultants Bureau Enterprises, Inc., 227 West 17th Street, New York City, United States of America.

CONTENTS (continued)

	PAGE ENG.	PAGE RUSS.
Investigation of Catecholamines in Various Organs of Dogs During Deep Hypothermia – E. P. Stepanyan, V. A. Bukharin and M. A. Chernyavskaya	982	56
The Concentration of Ribonucleic Acid in a Denervated Muscle – M. F. Popova	987	61
PHARMACOLOGY		
On the Mechanism of Pharmacological Cardioplegia – L. V. Rozenshtraukh and A. P. Fedorova	990	65
On the Capacity of Mineral Radon Water to Restore Functioning of a Frog Heart, Disturbed by the Action of Cortisone and ACTH – A. G. Saakyan and M. I. Kazanchev	994	69
MICROBIOLOGY AND IMMUNOLOGY		
Formaldehyde Induced Mutations of the Virus of Western Equine Encephalomyelitis – G. D. Zasukhina	997	73
Genetic Recombinations in Intestinal Bacteria. Report 3. A Study of the Genetic Structure of Dysentery Bacteria Hybrids (Serological Properties) – A. A. Abidov	1000	76
A Study of Plague Phages and the Bacterial Mutants Resistant to Them. Report 1. Biological Properties of the Plague Phages – A. I. Volosivets	1004	81
Excretion of Dysentery Bacteriophage by the Kidneys of Mice During Experimental Dysentery Infection – K. S. Zobnina	1008	84
A and B Antigens in the Cells of Tissues from Group Substance Secretors and Nonsecretors – L. N. Lemeneva and P. N. Kosyakov	1012	89
ONCOLOGY		
Electrophoretic Motility of Mouse Hepatoma 22 Cells and Normal Mouse Liver Cells Subsequent to the Action of Dispersing Agents – E. A. Modyanova and Z. A. Rozhkova	1016	93
A Method of Obtaining Specific Anticancer Sera – A. K. Saakov	1019	95
EXPERIMENTAL BIOLOGY		
Possible Sources of Regeneration of Interrenal Tissue in Mammals – A. A. Ferkhmin	1022	99
Change in Hypophyseal Activity and in Structure and Function of the Ovaries Under the Influence of Hypothalamic Electrical Stimulation – Yu. N. Bordyushkov	1025	102
The Influence of Hormones of the Posterior Hypophyseal Lobe on the Stimulated Thyroid Gland – V. I. Gubskii	1029	107
MORPHOLOGY AND PATHOMORPHOLOGY		
Comparative Data on the Morphological Constitution of Bone Marrow Punctures and Smears from the Sternum and Femur of Healthy Dogs – I. N. Usacheva	1033	112
The Morphological Basis of the Sokovnin Phenomenon – S. V. Kuzmina	1035	113
The Influence of Various Amounts of Pyrogenal on the Formation of Scars of the Spinal Cord – T. N. Nesmeyanova, E. I. Iordanskaya, and F. A. Brazovskaya	1039	115
METHODS		
Size of the Dog Brain Before and After Perfusion of the Blood Vessels with 10% Formalin – A. D. Nozdrachev, V. I. Syrenskii, and G. A. Shichko	1043	120
Division of the Spinal Cord Below the Medulla – R. A. Aleksanyan	1046	122
Application of a SF-4 Spectrophotometer to a Study of the Passage of Ultraviolet Rays Through Animal Fur – D. A. Ustinov, and I. I. Kozunin	1048	124

BYULLETEN' ÉKSPERIMENTAL'NOI BIOLOGII I MEDITSINY
EDITORIAL BOARD
A. Ya. Alymov
V. N. Chernigovskii
S. Ya. Kaplanskii
G. N. Kryzhanovskii
(Secretary)
A. V. Lebedinskii
(Assistant Editor)
L. D. Liozner
I. N. Maiskii
V. A. Negovskii
V. V. Parin
(Editor)
V. A. Sanotskii
L. L. Shik
A. A. Solov'ev
N. N. Zhukov-Vereshnikov
(Assistant Editor)

BULLETIN OF EXPERIMENTAL BIOLOGY AND MEDICINE

A translation of BYULLETEN' EKSPERIMENTAL'NOI BIOLOGII I MEDITSINY

A publication of the Academy of Medical Sciences of the USSR

© 1964 CONSULTANTS BUREAU ENTERPRISES, INC.
227 West 17th Street, New York 11, N. Y.

Volume 56, Number 10 October, 1963

CONTENTS

	PAGE ENG.	PAGE RUSS.
PHYSIOLOGY		
The Electrical Excitability of Smooth Muscle Cells—A. V. Kibyakov and R. S. Orlov	1053	3
The Relationship of the Latent Period of Evoked Potentials in the Gyrus Syprasylvicus Medius and Gyrus Lateralis Pars Anterior to the Intensity of Peripheral Stimulation—I. Petrzhek, V. Golda, P. Lizonek	1056	6
Change in the Reflex Organization of the Visual Receptor in Response to Thermal Cutaneous Stimulation—L. M. Kurilova	1060	10
Factors in the Development of Feeding Behavior of the Muscicapa-Hypoleuca Squeakers —S. N. Khautin	1063	14
Intestinal Secretion in Monkeys—Z. N. Dzhelieva	1067	18
PATHOLOGICAL PHYSIOLOGY AND GENERAL PATHOLOGY		
Investigation of Hyaluronidase Activity as a Method of Evaluation of Activity of Rheumatic Fever—É. I. Tanyukhina	1071	22
Role of the Fall in Lipolytic Activity of the Wall of the Aorta and the Pathogenesis of Its Lipoid Infiltration—B. L. Lempert and F. L. Leites	1074	25
Lipolytic Activity of Adipose Tissue in Experimental Alloxan Diabetes—N. K. Davtyan	1078	29
Comparative Biochemical and Histochemical Study of the Lipids of the Liver and Heart in Experimental Hypervitaminosis B_1 in Pigeons—Yu. M. Ostrovskii and V. S. Nikitin	1081	32
Course of Experimental Tuberculosis in Animals Preliminarily Acclimatized to Hypoxia —V. M. Davydova	1083	35
BIOCHEMISTRY AND BIOPHYSICS		
Effect of Paraaminobenzoic Acid on Cholesterol Synthesis and Breakdown in the Liver of Intact and Atherosclerotic Rabbits—A. F. Rhzhova	1089	41
Tissue Protein Breakdown in Burns—T. L. Zaets, T. D. Gulyamov, and B. I. Lektorskii	1092	44
Plasma Lactic Dehydrogenase Activity in Rats after Administration of Monoiodoacetic Acid—N. V. Bogoyavlenskaya	1096	48
Histochemical Study of the Sulfhydryl Groups of Tissue Proteins in the Superior Cervical Sympathetic Ganglion of the Cat in States of Rest and Excitation—I. B. Krasnov	1098	50

(continued)

Annual Subscription $95 **Single Issue $30** **Single Article $15**

All rights reserved. No article contained herein may be reproduced for any purpose whatsoever without permission of the publisher. Permission may be obtained from Consultants Bureau Enterprises, Inc., 227 West 17th Street, New York City, United States of America.

CONTENTS (continued)

	PAGE ENG.	PAGE RUSS.
PHARMACOLOGY		
Experimental Study of the New Antituberculosis Drug Diambutol—M. A. Breger and A. M. Chernukh	1102	55
Effect of Cardiac Glucosides on the Coronary Circulation and the Oxygen Absorption by the Heart in Experimental Myocardial Infarction—E. A. Veselova	1105	57
Effect of Depth of Anesthesia on Serum Electrolyte Levels in Dogs—A. V. Sudzhyan	1110	62
MICROBIOLOGY AND IMMUNITY		
Genetic Recombinations in Enterobacteria. Report 4. The Study of the Genetic Structure of Shigella Hybrids (Phage and Virulence Relationships)—A. A. Abidov	1112	65
Variability of the Intratype Antigen Marker of Strains of Poliomyelitis—Yu. Z. Gendon	1114	67
Immunogenesis and Nonspecific Factors of Natural Resistance. Communication III. Influence of Active Immunization on the Lysozyme Content of Blood —D. F. Pletsityi and E. S. Fidel'man	1117	69
Skin Homografts and Immunological Activity in Rabbits—V. I. Govallo	1121	74
The Influence of Novocaine on Immunogenesis—N. N. Klemparskaya	1124	77
EXPERIMENTAL BIOLOGY		
Relationship between the Thyrotrophic Function of the Hypophysis and the Neurosecretion in the Pigeon—A. A. Voitkevich	1128	82
Ovarian Hormones as a Factor Essential to Mitosis of Epithelial Cells of Reproductive Organs—S. S. Laguchev and R. A. Kargina-Terent'eva	1131	85
Mitotic Activity of Mammary Gland Tissues after Trauma in Noncastrated and Castrated Rats—E. N. Nikiforova	1134	89
Ratio between the Numbers of Polyploid and Binuclear Liver Cells during the 24-Hour Period—T. A. Zaletaeva	1138	93
Mechanism of Detachment of the Epithelial Layer of the Villi of the Small Intestine —Yu. P. Kunkel'	1141	96
MORPHOLOGY AND PATHOMORPHOLOGY		
Comparative Histochemical Study of the Nuclei of the Specific Systems and Reticular Formation of the Brain in a Series of Mammals—E. I. Il'ina-Kakueva	1145	100
Morphophysiological Analysis of the Changes in the Skin after Interruption of Its Sympathetic Innervation—N. G. Khrushchov	1150	105
The State of the Peripheral Nervous Structures of the Hind Limb of the Rabbit during Development of a Collateral Circulation—Yu. I. Denisov-Nikol'skii	1154	110
Method for Continuous Recording of the Thickness of the Myocardium—V. S. Sinyakov	1158	114
Method for Determination of the Arterial Pressure in the Laboratory Animals without Blood Loss—R. Yu. Looga and M. M. Kull'	1161	116
Direct Recording of the Action Currents of the Nerve Trunks and a Quantitative Assessment of Nervous Activity—N. I. Losev and S. B. Kuz'minykh	1164	119
A Device and a Method for Measurement for Pulmonary Ventilation in Small Animals —V. A. Strelets and L. A. Rutsko	1168	123

BYULLETEN' ÉKSPERIMENTAL'NOI BIOLOGII I MEDITSINY
EDITORIAL BOARD

A. Ya. Alymov
V. N. Chernigovskii
S. Ya. Kaplanskii
G. N. Kryzhanovskii
(Secretary)
A. V. Lebedinskii
(Assistant Editor)
L. D. Liozner
I. N. Maiskii
V. A. Negovskii
V. V. Parin
(Editor)
V. A. Sanotskii
L. L. Shik
A. A. Solov'ev
N. N. Zhukov-Verezhnikov
(Assistant Editor)

BULLETIN OF EXPERIMENTAL BIOLOGY AND MEDICINE

A translation of BYULLETEN' ÉKSPERIMENTAL'NOI BIOLOGII I MEDITSINY

A publication of the Academy of Medical Sciences of the USSR

© 1964 CONSULTANTS BUREAU ENTERPRISES, INC.
227 West 17th Street, New York 11, N. Y.

Volume 56, Number 11 November, 1963

CONTENTS

	PAGE ENG.	PAGE RUSS.
PHYSIOLOGY		
Influence of Cerebellar Stimulation on the Activity of the Internuncial and Motor Neurones of the Spinal Cord as Recorded by Intracellular Electrodes—A. I. Shapovalov and E. B. Arushanyan	1173	3
The Effect of Electrical Polarization of the Motor Nerve Endings on the Transmission Through Them of Single Impulses—I. A. Vladimirova	1180	11
Efferent Reactions in the Sublingual Nerve—A. I. Esakov	1184	15
The Stimulating Action of Acth and Related Polypeptides on the Spontaneous Rhythm of Isolated Heart Muscle Cells in Vitro—A. Vollenberger and V. Galle	1187	18
Changes in the Electrical Activity of the Respiratory Muscles of Cats During Coughing —Yu. Korpash and A. M. Kulik	1192	24
A Functional Connection Between the Thyroid Gland and the Stomach—S. V. Sholokhov	1195	27
Plastic Tone of the Fundal and Pyloric Divisions of the Stomach—S. D. Groisman	1200	32
The Problem of the Interaction of the Cerebellum and Thyroid Gland—E. A. Moiseev, R. A. Proshina, and M. M. Reidler	1203	35
PATHOLOGICAL PHYSIOLOGY AND GENERAL PATHOLOGY		
Deep Hypothermia as a Method of Prolonging Clinical Death—V. A. Negovskii, V. I. Soboleva, N. L. Gurvich, and K. S. Kiseleva	1206	39
Resuscitation of Animals with Experimental Myocardial Infarction—V. N. Semenov	1210	44
Effect of Blocking the Central Cholinergic Synaptic Systems on Resistance of the Cerebral Cortex to Asphyxia and Ischemia—G. A. Livanov	1214	47
Changes in the T Wave of the ECG During an Increase in Tone of the Vagus Center in Normal Dogs and in Dogs with Experimental Myocardial Infarction—A. I. Smirnov, S. V. Tolova, and T. N. Kovaleva	1219	52
Regional Vascular Reactions of the Internal Organs in Response to Interoceptive Stimuli in Normal Conditions and in Experimental Hypertension—A. I. Vyshatina	1223	56
Effect of Nervous Stress on Some Aspects of Human Metabolism—Yu. F. Udalov and A. G. Shibuneev	1228	61

(continued)

Annual Subscription $95 **Single Issue $30** **Single Article $15**

All rights reserved. No article contained herein may be reproduced for any purpose whatsoever without permission of the publisher. Permission may be obtained from Consultants Bureau Enterprises, Inc., 227 West 17th Street, New York City, United States of America.

CONTENTS (continued)

	PAGE ENG.	PAGE RUSS.
Effects of Stimulation of Cortical Motor Points in Dogs After Hemisection of the Spinal Cord—S. N. Ivanova	1231	64
BIOCHEMISTRY AND BIOPHYSICS		
Effect of Oxygen on Biosynthesis of Cholesterol in Experimental Atherosclerosis —V. A. Lisovskii	1235	68
Action of Serotonin on the Blood Sugar Level and Insulin Effect—S. V. Zakharov	1238	71
The Excretion of Uropepsinogen in Dogs—V. L. Petrenko	1242	75
Effect of Fatigue on Nucleic Acid Metabolism in the Regenerating Liver of Partially Hepatectomized Rats—T. B. Rakhmanova	1247	79
PHARMACOLOGY		
A Study of the Penetration of Certain Cholinolytic Drugs Through the Blood-Brain Barrier by Perfusing the Cerebral Ventricles—S. N. Golikov and V. A. Pechenkin	1249	82
Effect of Nanophyne, Pachycarpine, and Gangleron on the Activating and Colvulsant Effects of Nicotine—R. Yu. Il'yuchenok, R. U. Ostrovskaya, and I. M. Vinnitskii	1252	85
Effect of Mediators and Anesthetics on the Functional State of the Superior Cervical Sympathetic Ganglion—T. V. Pravdich-Neminskaya	1256	89
Action of Atropine and Atropine-Like Substances Before and After Anaphylactic Contraction of Smooth-Muscle Organs—Nguen Nang An	1261	93
Immunological Hystochemical Characteristics of One of the Organ-Specific Antigens of Mouse Liver—N. V. Engel'gardt	1265	97
A Morphological Study of Transplantation Immunity—F. M. Lazarenko and E. A. Luria	1269	101
A Study of the Transforming Properties of Allergens—V. N. Polshkova and P. P. Sakharov	1271	104
Phage-Resistant Mutants of P. Pestis and Their Properties—A. I. Volosivets	1274	107
A Radioautographic Study of the Inhibitory Influence of Repeated Injections of Estrone on Cell Division of the Uterine Epithelium of Mice—O. I. Epifanova and I. N. Smolenskaya	1278	111
Association Fibers of the Visual Cortex—M. M. Khananashvili	1282	116
Functional and Morphological Features of the Mucous Membrane of the Guinea Pig Small Intestine—Z. N. Kadzhieva	1285	119
A Study of the Toxic Properties of Russian Cellophane Film for the "Artificial Kidney" Apparatus—G. B. Gorbovitsky, N. S. Supko, and L. N. Ivanova	1289	123

BYULLETEN' ÉKSPERIMENTAL'NOI BIOLOGII I MEDITSINY
EDITORIAL BOARD

A. Ya. Alymov
V. N. Chernigovskii
S. Ya. Kaplanskii
G. N. Kryzhanovskii
(Secretary)
A. V. Lebedinskii
(Assistant Editor)
L. D. Liozner
I. N. Maiskii
V. A. Negovskii
V. V. Parin
(Editor)
V. A. Sanotskii
L. L. Shik
A. A. Solov'ev
N. N. Zhukov-Verezhnikov
(Assistant Editor)

BULLETIN OF EXPERIMENTAL BIOLOGY AND MEDICINE

A translation of BYULLETEN' ÉKSPERIMENTAL'NOI BIOLOGII I MEDITSINY

A publication of the Academy of Medical Sciences of the USSR

© 1964 CONSULTANTS BUREAU ENTERPRISES, INC.
227 West 17th Street, New York 11, N. Y.

Volume 56, Number 12 December, 1963

CONTENTS

	PAGE ENG.	RUSS.
PHYSIOLOGY		
Effect of Strychnine on Activity of Motor and Internuncial Neurons of the Spinal Cord during Stimulation of the Anterior Lobe of the Cerebellum — A. I. Shapovalov and É. B. Arushanyan	1295	3
Functional State of the Respiratory Center and Changes in Respiratory Arrhythmia Associated with Increased Tone of the Vagus Center — A. I. Smirnov, S. V. Tolova and T. N. Kovaleva	1302	11
Relationship between Depressor and Pressor Reactions to Acetylcholine — B. I. Tkachenko	1306	14
Effect of Chlorpromazine on Respiration in the Frog — G. M. Baskakova and F. V. Kopytova	1311	20
Effect of the Electrical Polarization of Motor Nerve Endings and their Ability to Conduct Rhythmic Impulses — I. A. Vladimirova	1315	23
Changes in the Cardiovascular System during Acclimatization in the Intracontinental Region of Antarctica — I. I. Tikhomirov	1319	28
Development of Autonomic Reactions in Fowls during Embryogenesis — T. P. Blinkova and O. V. Bogdanov	1323	32
PATHOLOGICAL PHYSIOLOGY AND GENERAL PATHOLOGY		
On the Reasons for the Protective Action of Bacterial Antigens in Acute Radiation Sickness — M. I. Ravich-Shcherbo and L. G. Prokopenko	1327	36
On the Pathochemical Characteristics of Acute Toxic Fatty Dystrophy of the Liver — S. I. Dudarova	1330	39
Changes in the Permeability of the Hemato-Ophthalmic Barrier in Adrenalectomized Animals — A. G. Reznikov	1334	42
Experimental Analysis of the Placental Barrier Permeability in Toxoplasmosis under Conditions of Normal and Pathological Pregnancy — V. I. Verulashvili	1336	44
BIOCHEMISTRY AND BIOPHYSICS		
Accumulation of I^{131} by the Skin and Hair of Animals and Man — A. Ya. Loshak and A. V. Terman	1340	49

(continued)

Annual Subscription $95 **Single Issue $30** **Single Article $15**

All rights reserved. No article contained herein may be reproduced for any purpose whatsoever without permission of the publisher. Permission may be obtained from Consultants Bureau Enterprises, Inc., 227 West 17th Street, New York City, United States of America.

CONTENTS (continued)

	PAGE ENG.	PAGE RUSS.
Effect of Vitamin P on Ascorbic Acid Metabolism in Animals Temporarily Exposed to a High Environmental Temperature — A. Ya. Tseitina	1344	52
PHARMACOLOGY		
Changes in the Conditioned Reflex and Blood Cholinesterase Activity of Animals Under the Influence of the Phosphorganic Insecticide, Phosphamide — T. N. Pan'shina	1347	56
MICROBIOLOGY AND IMMUNOLOGY		
Mutations of the ht-Sign in Bacteriophage T-2, Induced by the Combined Action of Chemical Mutagens — D. M. Gol'dfarb and V. F. Chubukov	1351	61
An Electron Microscope Study of λ Bacteriophage Development in Cells of the Indicator Strain — A. P. Pekhov and B. A. Mishchenko	1353	63
Obtaining Antisera Against Growth Hormone by Immunizing Rabbits with Microdoses of the Antigen — A. F. Lazarev and E. E. Antonova	1356	66
The Use of Different Types of Cells for Culturing Toxoplasma Gondii — G. T. Akinshina	1359	69
ONCOLOGY		
Experimental Tumor of the Penis — A. L. Shabad	1362	73
EXPERIMENTAL BIOLOGY		
Vascular and Tissue Changes in the Ovary in Rabbits after Unilateral Ovariectomy — L. E. Étingen	1367	79
Determination of H-2 Genotype in Mice of CC57BR and CC57W Strains — I. K. Egorov	1372	84
Osteogenesis Following Transplantation of Marrow in Diffusion Chambers — K. V. Petrakova, A. A. Tolmacheva, and A. Ya. Fridenshtein	1375	87
MORPHOLOGY AND PATHOMORPHOLOGY		
The Morphology of Baroreceptors of the Aortic Arch of Puppies during Postnatal Development — E. M. Krokhina	1379	92
Structural Changes of the Visual Analyzer of Monkeys after Extirpation of the Occipital Lobes — L. V. Koroleva	1384	97
Regeneration of the Sciatic Nerve in Acute Radiation Sickness — O. N. Baishtruk and Ya. I. Ryss	1387	100
Structural Changes of the Mucous Membrane of the Stomach after Experimental Resection — N. A. Nilova	1390	104
METHODS		
A Method for the Combined Study of Temperature, Pressure, and Gaseous Composition of the Subcutaneous Bullae Formed in High-Altitude Tissue Emphysema — E. A. Kovalenko and E. V. Vinogradov	1394	109
Method of Obtaining Pure Pancreatic Juice from Puppies — Z. V. Kuznetsova	1398	112
Author Index, Vols. 55 and 56, 1963	1403	
Tables of Contents, Vols. 55 and 56, 1963	1407	